

**UNITED STATES DEPARTMENT OF COMMERCE****Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY/DOCKET NO.
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09/451,628 11/30/99 TEPMAN A AMAT/4285/MD

<input type="checkbox"/>	IM22/0927	<input type="checkbox"/>	EXAMINER
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ART UNIT 1763 *b* PAPER NUMBER

DATE MAILED: 09/27/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/451,628	TEPMAN ET AL.
	Examiner	Art Unit
	Luz Alejandro	1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

**Status**

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-6 is/are pending in the application.
  - 4a) Of the above claim(s) 2-3 and 6 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,4 and 5 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claims 1-6 are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved.
- 12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
  - a) All b) Some \* c) None of the CERTIFIED copies of the priority documents have been:
    1. received.
    2. received in Application No. (Series Code / Serial Number) \_\_\_\_\_.
    3. received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

**Attachment(s)**

- 15) Notice of References Cited (PTO-892)
- 16) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3 .
- 18) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 19) Notice of Informal Patent Application (PTO-152)
- 20) Other: \_\_\_\_\_

## DETAILED ACTION

### ***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1 and 4-5, drawn to a multi-chamber apparatus, classified in class 118, subclass 715.
- II. Claims 2-3 and 6, drawn to a method of using a multi-chamber deposition system, classified in class 438, subclass 758.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the process could be conducted so that the pre-heating is done in a separate apparatus all within a high-purity clean room.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with B. Todd Patterson on 9-15-00 a provisional election was made with traverse to prosecute the invention of group I, claims 1 and 4-5. Affirmation of this election must be made by applicant in replying to this Office action.

Claims 2-3 and 6 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Rubin et al., U.S. Patent 4,852,516.

Rubin et al. shows the invention as claimed including a multi-chamber apparatus including an initial load lock chamber for storage (see Figure 7) connected to a multitude of process chambers each chamber including a modular plumbing tray 172 (see Figure 1) and a chamber tray including links which include water lines, gas lines,

vacuum lines, drain lines, and communication lines (see column 3, line 65 – column 8, line 60).

Claims 1 and 4-5 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Maher et al., U.S. Patent 4,715,921, see Figures 1-2 and 10, and column 3, line 39- column 8, line 50.

Claims 1 and 4-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Lei et al., U.S. Patent 6,083,321.

Lei et al. shows the invention as claimed including a transfer chamber 90; a modular plumbing tray 10 adjacent the transfer chamber and having connections from the facility to the process chambers; and a chamber tray adjacent the one or more of the process chambers including an injection control valve 18, the chamber tray having facility connections connected to one or more of the facility connections in the plumbing tray (see Figures 2-3 and column 3, line 8 – column 5, line 60). Regarding claim 4, there are various manifold configurations clearly shown in Figure 3. Regarding claim 5, the gas delivery system 10 can be rigidly mounted to the process chamber 30 on a common module support frame 50. In addition, components of the gas delivery system are listed in column 4, lines 48-58 and may include pumps and gas supplies and the respective plumbing required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rubin et al., U.S. Patent 4,852,516.

Rubin et al. is applied as above but lacks anticipation of showing manifolds for vacuum, gas, water, or helium. In response, the examiner takes official notice that manifolds are well known in the art and their inclusion in the Rubin et al. reference would be *prima facie* obvious, in order to provide the required services to the process chambers.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 5,620,578, U.S. Patent 5,855,681, U.S. Patent 5,900,105, U.S. Patent 6,017,395, U.S. Patent 5,873,942, and U.S. Patent 6,120,606 show the state of the art as it relates to multi-chamber apparatus configurations.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luz Alejandro whose telephone number is 305-4545. The examiner can normally be reached on Monday to Thursday from 8:30 to 6:00 and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Mills can be reached on 308-1633. The fax phone numbers for the organization where this application or proceeding is assigned is 305-3599 for regular communications and for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0661.

  
LLAM  
September 22, 2000

  
GREGORY MILLS  
PRIMARY EXAMINER